

January 25, 2019

Project No. 013-6052-014

Debra Rossi, Remedial Project Manager

USEPA Region 3
1650 Arch Street, 3HS21
Philadelphia, PA 19103-2029

**RE: MONTHLY PROGRESS REPORT – DECEMBER 2018 REPORTING PERIOD
DELAWARE SAND & GRAVEL SUPERFUND SITE
NEW CASTLE COUNTY, DELAWARE**

Dear Ms. Rossi:

Golder Associates Inc. (Golder) prepared this monthly progress report on behalf of the Respondents for the Delaware Sand & Gravel (DS&G) Superfund Site (Site) in satisfaction of the requirements of Paragraph 4.1 of the Remedial Design Statement of Work (RD SOW) included as Appendix B of the Administrative Settlement Agreement and Order on Consent for Remedial Design (RD AOC; Docket No. CERCLA-03-2018-0116DC) executed by the United States Environmental Protection Agency (USEPA) on May 22, 2018 and effective May 29, 2018 (Settlement). (Although Paragraph 4.1 of the RD SOW does not require submission of the monthly progress report until after USEPA's approval of the Remedial Design Work Plan (RDWP), Respondents have elected to make such submissions on a monthly basis by the 15th of the month.) The following sections provide a summary of the required reporting items under the Settlement for the above-referenced reporting period. For completeness, Section 2 summarizes activities performed during the reporting period under the 1993 Consent Decree for the Site and those anticipated during the next reporting period.

1.0 2018 RD AOC

1.1 Actions Toward Achieving Compliance with Settlement¹

- Implementation of pre-design investigation (PDI) field activities on December 4, 2018 (USEPA issued Partial Approval of the Pre-Design Investigation Work Plan [PDI WP] on November 30, 2018 with comments). Demobilization from Site for holidays occurred for the period of December 21, 2018 through January 2, 2019. Re-mobilization to the Site occurred on January 2, 2019 with field work resuming on January 3, 2019.
- Preparation and submittal of a response to the USEPA on December 7, 2018 as requested by the USEPA in its comment on alternate purging and sampling methods for long-screened wells (see USEPA letter regarding Partial Approval of PDI Work Plan dated November 30, 2018)
- Preparation of PDI WP-Revision 1 and Sampling and Analysis Plan-Revision 1 for submittal to the USEPA (submitted on January 9, 2019)
- Monthly conference call (pursuant to Section VII, Paragraph 13.a.3. of the RD AOC) on December 18, 2018 with USEPA, Project Coordinator and Supervising Contractor

¹ Paragraph 4.1(e) of the RD SOW requires "[i]nformation regarding the percentage of completion" be included in the monthly progress reports. This information will be included in future progress reports after USEPA's approval of the RDWP.

1.2 Data Received and/or Generated

- Data associated with the drilling and vertical aquifer profiling performed under the Settlement were generated and/or received during the reporting period
- The Respondents coordinated through conference calls and meetings with the USEPA, the Delaware Department of Natural Resources and Environmental Control (DNREC), and Artesian Water Company (AWC) during the reporting period regarding certain sampling data associated with the PDI field activities

1.3 Deliverables Submitted to USEPA

- *Memorandum: Response to USEPA Request for Alternate Purging and Sampling Method for Long-Screen Wells* submitted to the USEPA on December 7, 2018 (see request in USEPA letter regarding Partial Approval of PDI Work Plan dated November 30, 2018)

1.4 Activities Scheduled for Next Six Weeks (through Mid-February 2019)

- Submittal of the PDI WP-Revision 1 and SAP Revision 1 to USEPA for review and approval
- Preparation and submittal of RDWP-Revision 1 to the USEPA on or before January 31, 2019
- Signing of addenda to existing access agreements. New access agreements are not anticipated at this time
- Continued performance of drilling and VAP activities. Monitoring wells are not being installed at this time due to the government shutdown and need for USEPA approval of proposed well screen intervals and well construction
- Submittal and receipt of well permits from DNREC for wells to be located on New Castle County's property
- Continued performance of public utility locates at proposed drilling locations through Miss Utility and private utility locates and clearances at proposed drilling locations by Enviroprobe Service Inc. and Badger Daylighting Inc.
- Tree clearing in the areas of profiling locations UPA-107 and UPA-108
- Monthly conference call (pursuant to Section VII, Paragraph 13.a.3. of the RD AOC) on January 24, 2019 with USEPA, Project Coordinator and Supervising Contractor
- Field activities related to the PDI are anticipated to occur during the following periods:
 - ◆ January 3 through January 10, 2019
 - ◆ January 15 through January 24, 2019
 - ◆ January 29 through February 7, 2019
 - ◆ February 12 through February 24, 2019 (may be rescheduled due to lack of USEPA approval of monitoring well construction due to government shutdown)
- Continued monitoring of transducers in 10 monitoring wells to observe AWC's Llangollen wellfield operations

1.5 Unresolved Delays Encountered and/or Anticipated and Efforts to Mitigate Those Delays

- The ongoing government shutdown may affect the future schedule
- No other delays were encountered and/or are anticipated at this time which may affect the future schedule

1.6 Proposed and/or Approved Modifications to Work Plans and/or Schedules²

- Comments from the USEPA dated October 24, 2018 and November 30, 2018 and from DNREC dated October 22, 2018 with responses prepared by Golder on behalf of the DS&G Trust dated November 16, 2018 and December 7, 2018 resulted in modification of the PDI WP and SAP (both revised and submitted on January 9, 2019)
- Comments from the USEPA dated October 24, 2018 will result in minor modifications to the RDWP
- There are no proposed or approved modifications to the RD SOW schedule at this time; however, comments from the USEPA and DNREC and responses from the Respondents on the PDI WP and SAP, as well as the government shutdown, may result in proposed schedule modifications

1.7 Community Involvement Plan³ (CIP) Activities

- At this time, the USEPA has not requested the participation of the Respondents in community involvement activities

2.0 ACTIVITIES UNDER 1993 CONSENT DECREE

The groundwater monitoring program performed under 1993 Consent Decree is in revision as part of the SAP prepared and submitted with the PDI WP. The SAP (Revision 0) was submitted to the USEPA on August 17, 2018. Subsequent correspondence, discussions and deliverables included the following:

- USEPA provided comments on the SAP via email on October 24, 2018
- USEPA and Trust representatives met at the USEPA Region 3 offices on October 31, 2018 to discuss comments and responses
- Summary of Comments and Responses was submitted to the USEPA on November 16, 2018
- USEPA provided additional comments via letter dated November 30, 2018⁴
- Response to USEPA Request for Alternate Purging and Sampling Method for Long-Screen Wells (Alternate Methods Memo) was submitted to the USEPA on December 7, 2018

² Per Paragraph 4.2 of the RD SOW, "If the schedule for any activity described in the Progress Reports, including activities required to be described under Paragraph 4.1(d), changes, Respondents shall notify EPA of such change at least seven days before performance of the activity."

³ Per Paragraph 2.1(a) of the RD SOW: "In 1984, EPA developed a Community Involvement Plan (CIP) for the Site; EPA updated the CIP in 2017. Pursuant to 40 C.F.R. § 300.435(c), EPA shall review the existing CIP and determine whether it should be revised to describe further public involvement activities during the Work that are not already addressed or provided for in the existing CIP."

⁴ USEPA letter stated "submit the revised PDI Work Plan and SAP to EPA and DNREC, for approval by EPA, no later than December 31, 2018." This submittal date was subsequently revised to January 8, 2019 as documented via emails dated December 18, 2018 and January 7, 2019.

- USEPA approved the use of Eurofins' modified Method 537 for the analysis of groundwater via email dated December 18, 2018
- USEPA provided a request for split sample collection for PFAS analysis during April 2019 event via email dated December 19, 2018
- USEPA provided a response to the Alternate Methods Memo via email dated December 20, 2018
- SAP-Revision 1 was submitted to the USEPA for review on January 9, 2019 with the PDI WP-Revision 1

2.1 Performed During Reporting Period

2.1.1 Groundwater Monitoring

- Initial preparation of the Fall 2018 Semi-Annual Groundwater Monitoring Event Report
- Performance of the bi-monthly groundwater monitoring event for December 2018

2.1.2 Landfill Inspections, LFG Monitoring and Mitigation System OM&M

- Performance of Fourth Quarter 2018 Inspection and Landfill Gas Monitoring Event
- Delivery, installation and start-up of direct-venting system

2.2 Scheduled for Next Reporting Period (January 2019)

2.2.1 Groundwater Monitoring

- No activities scheduled at this time

2.2.2 Landfill Inspections, LFG Monitoring and Mitigation System OM&M

- OM&M of direct-venting system
- Preparation of the Fourth Quarter 2018 Inspection and Landfill Gas Monitoring Event Report
- Revision and submittal of the LFG Mitigation System OM&M Plan

If there are any questions regarding this progress report, please do not hesitate to contact the undersigned.

Very truly yours,

Golder Associates Inc.



Theresa A. Miller, LSP, PG
Senior Consultant

cc: (via email) C. Wirtz, DNREC
D. Sutton, HGL
S. Mays, DS&G Trust

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